

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. – 9. (Canceled)

10. (Currently amended) A diffusion layer for a fuel cell comprising:
a base layer,

said base layer including: (a) a carbonized yarn of a woven fabric, and (b) a solidified carbonized binder impregnated into the yarn and connecting filaments of the yarn,

wherein the base layer and the binder impregnated into the base layer are carbonized at about 2000°C.

11. - 18. (Canceled)

19. (Previously presented) A diffusion layer for a fuel cell comprising:
a base layer,

said base layer including: (a) a non-woven carbon paper comprising carbon fibers, and (b) a synthetic carbonized resin binder impregnated into the carbon paper, the binder impregnated into a first portion of the carbon paper in an amount such that the first portion more rigid than a second portion of the carbon paper, and omitted from or impregnated into the second portion in an amount such that the second portion is more flexible than the first portion, the first and the second portions being distributed in alternating planar regions across the base layer.

20. - 24. (Canceled)

25. (Original) A diffusion layer for a fuel cell comprising:

a base layer having opposite surfaces; and

a water-repellent layer made from a mixture of carbon and synthetic resin formed on one surface of said base layer, said water-repellent layer being constructed of a multi-layer structure including an inner layer and an outer layer different in adhesiveness and strength to each other, said inner layer having a strength greater than a strength of said outer layer, said outer layer having an adhesiveness stronger than an adhesiveness of said inner layer.

26. - 28. (Canceled)

29. (Currently amended) A diffusion layer for a fuel cell comprising:

a ~~first~~ water-repellent layer including a first binder made from a synthetic resin having an adhesiveness, and ~~a second water-repellent layer including a second binder~~ made from material having a higher rigidity than said synthetic resin of said first binder,

wherein the two kinds of binders are dissolved in solvent, coated onto the water-repellent layer, and solidified at a temperature near the melting point of the synthetic resin.

34. (Currently amended) A diffusion layer for a fuel cell, comprising:

a base layer; and

a water-repellent layer coated on said base layer, said water-repellent layer including a solidified mixture of ~~solidified~~ carbon and synthetic resin, said synthetic resin containing filaments of synthetic resin particles;

wherein the synthetic resin is deformed into said filaments by applying a shear force to the mixture before the mixture in the form of a paste is coated onto the base layer.

35. - 39. (Canceled)

40. (New) A diffusion layer for a fuel cell comprising:

a base layer having opposite surfaces; and
a water-repellent layer made from a mixture of carbon and synthetic resin formed on one surface of said base layer, said water-repellent layer being constructed of a multi-layer structure including an inner layer and an outer layer, said inner layer solidified at a first temperature and said outer layer solidified at a second temperature lower than the first.

41. (New) The diffusion layer of claim 40, wherein said first temperature is higher than about 350°C, and said second temperature is about 320°C.

42. (New) The diffusion layer of claim 41, wherein said inner layer has a higher ratio of PTFE to carbon, and said outer layer has a lower ratio of PTFE to carbon.

43. (New) The diffusion layer of claim 19, wherein in the first portion the binder is impregnated in a spline pattern.